



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
-----------------	-------------	----------------------	---------------------	------------------

10/787,077

02/27/2004

Yusuke Hashizume

016907-1605

5483

22428 7590 02/28/2008

FOLEY AND LARDNER LLP  
SUITE 500  
3000 K STREET NW  
WASHINGTON, DC 20007

EXAMINER

CHEN, HUO LONG

ART UNIT

PAPER NUMBER

4157

MAIL DATE

DELIVERY MODE

02/28/2008

PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	<b>Application No.</b> 10/787,077	<b>Applicant(s)</b> HASHIZUME ET AL.	
	<b>Examiner</b> HUO LONG CHEN	<b>Art Unit</b> 4157	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 27 February 2004.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-34 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-34 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 27 February 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All    b) ☐ Some \*    c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)            | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)   | Paper No(s)/Mail Date. _____                                      |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>02/27/04, 8/26/04, 12/6/07</u> .                              | 6) <input type="checkbox"/> Other: _____                          |

***Claim Rejections - 35 USC § 102***

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claims 1, 2, 4-8, 13, 18, 19, and 21-25 are rejected under 35 U.S.C. 102 (b) as being anticipated by Tomaru (US 2003/0214687)

With respect to **claim 1**, Tomaru teaches an image reading apparatus (Fig. 1) which reads an image from a document placed on a document glass [platen glass (Fig. 1, element 11)], in multiple colors or monochromatically (Fig.2, element 2), the apparatus comprises:

a photoelectric converting unit composed of a color line sensor and a monochromatic line sensor [a solid-state image sensing device array (Fig.2, element 15)];

a scanning section [F/R-CRG (Fig.1, element 12 and paragraph 29)] in which an optical system guiding light from the document on the document glass to the photoelectric converting unit is mounted;

a driving mechanism [pulse motor (paragraph 30)] which moves the scanning section in a sub-scanning direction relative to the document on the document glass; and

a control section [a control section is inherent disclosed since a solid-state image sensing device array (Fig.2, element 15) is capable to configure to read color image with element array 15R, 15G, 15B (Fig.2, elements 15R, 15G, and 15B) and read

Art Unit: 2626

monochrome image with element array 15W (Fig.2, element 15W)] which uses the color line sensor (Fig.2, elements 15R, 15G, and 15B) to start loading image data if the image is read, in multiple colors, from the document placed on the document glass and when a scan position of the scanning section moved by the driving mechanism [pulse motor (paragraph 30)] in the sub-scanning direction reaches a color read start position, and which uses the monochromatic line sensor (Fig.2, element 15) to start loading image data if the image is read monochromatically from the document placed on the document glass and when the scan position of the scanning section moved by the driving mechanism in the sub-scanning direction reaches a monochromatic read start position different from the color read start position (paragraphs 38 and 40).

With respect to **claim 2**, Tomaru teaches the image reading apparatus according to claim 1, wherein the color read start position is determined on the basis of a relationship between the scan position of the scanning section and a position of the color line sensor (Fig.2, elements 15R, 15G, and 15B) with respect to the document glass (Fig.8a, paragraph 69), and

the monochromatic read start position is determined on the basis of a relationship between the scan position of the scanning section and a position of the monochromatic line sensor (Fig. 2, element 15W) with respect to the document glass (Fig.8b, paragraph 71).

With respect to **claim 4**, which further limits claim 1, it is analyzed and rejected for the same reason set forth in the rejection of claim 1. Tomaru further teaches a driving

Art Unit: 2626

mechanism is composed a stepping motor which is driven in response to a driving clock provided by a control section (paragraphs 30 and 69-72).

With respect to **claim 5**, which further limits claim 4, it is analyzed and rejected for the same reason set forth in the rejection of claim 1.

With respect to **claim 6**, which further limits claim 1, it is analyzed and rejected for the same reason set forth in the rejection of claim 1. Tomaru further teaches color and monochromatic line sensors are arranged with a predetermined distance (Fig. 2, element 15).

With respect to **claim 7**, it is analyzed and rejected for the same reason set forth in the rejection of claim 1. Tomaru further teaches a document feeding section (Fig.1, element 20) that conveys the document placed on a document feeding table and scanning section is located in a stationary state before a image is conveyed (paragraphs 65).

With respect to **claim 8**, which further limits claim 7, Tomaru teaches the image reading apparatus according to claim 7, wherein the color read position is set by aligning a central position of the scan position of the color line sensor with a focused position (Fig.5a, Fig. 6a, and paragraphs 56 and 60), and

the monochromatic read position is set by aligning a central position of the scan position of the monochromatic line sensor with the focused position (Fig.5b, Fig. 6b, and paragraphs 56 and 60).

With respect to **claim 12**, which further limits claim 7, Tomaru teaches the image reading apparatus according to claim 7, wherein the photoelectric converting unit [a

Art Unit: 2626

solid-state image sensing device array (Fig. 2)] is composed three line sensors for three primary colors (Fig. 2, elements 15R, 15G, and 15B) arranged at predetermined intervals and a black and white line sensor (Fig. 2, element 15W),

the color read position is where a scan position of a central one of the three line sensors for the three primary colors coincides with the focused position (Fig. 5a, and Fig.6a), and

the monochromatic read position is where a scan position of the black and white line sensor coincides with the focused position (Fig.5b, and Fig.6b).

With respect to **claim 13**, it is analyzed and rejected for the same reason set forth in the rejection of claim 7. Tomaru teaches The solid-state image sensing device array (Fig2, element 15) which has element arrays 15R, 15G, and 15B (Fig.2) of 3 line configurations corresponding to the spectral sensitivity characteristic of each color of R, G, and B, and the element array 15W (Fig. 2) corresponding to the spectral sensitivity characteristic of black and white (paragraph 37). The solid-state image sensing device array (Fig2, element 15) can be moved along a direction perpendicular to an optical axis direction of the lens (Fig. 5a, element 14, and paragraph 54).

With respect to **claim 18**, it is analyzed and rejected for the same reason set forth in the rejection of claim 1.

With respect to **claim 19**, which further limits claim 18, it is analyzed and rejected for the same reason set forth in the rejection of claim 2.

With respect to **claim 21**, which further limits claim 18, it is analyzed and rejected for the same reason set forth in the rejection of claim 4.

With respect to **claim 22** which further limits claim 21, it is analyzed and rejected for the same reason set forth in the rejection of claim 5.

With respect to **claim 23**, which further limits claim 18, it is analyzed and rejected for the same reason set forth in the rejection of claim 6.

With respect to **claim 24**, it is analyzed and rejected for the same reason set forth in the rejection of claim 7.

With respect to **claim 25**, which further limits claim 24, it is analyzed and rejected for the same reason set forth in the rejection of claim 8.

***Claim Rejections - 35 USC § 103***

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

- (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claim 3, 10, 11, 14-17, 20, and 27-34 are rejected under 35 U.S.C. 103(a) as being obvious by Tomaru (2003/0214687) as applied to claims 1, 2, 4-8, 13, 18, 19, and 21-25 in view of well-known prior art.

With respect to **claim 3**, which further limits claim 1, it is analyzed and rejected for the same reason set forth in the rejection of claim 1.

However, Tomaru fails to expressly disclose that the control section loads data from the color line sensor and the monochromatically line sensor before an end position is reach.

Official notice is taken on well-known prior art that an image reading apparatus to load image data from line sensor until the desire position of image is being reached because if the desire section of the image is not being reaching, an image reading apparatus would not consider that the scanning job is done. It would have been oblivious to one of ordinary skill in the art at the time of the invention.

With respect to **claim 10**, which further limits claim 7, Tomaru teaches a color line sensor [a solid-state image sensing device array group (Fig. 2, element 15)] composing of R, G, and B line sensors. A color line sensor [a solid-state image sensing device array group (Fig. 2, element 15)] can be moved along a direction perpendicular to an optical axis direction of the lens (Fig. 5a, element 14, and paragraph 54), or the lens (Fig. 6a, element 14) can be moved along a direction perpendicular to an optical axis direction of the lens (drawing 6, element 14, and paragraph 61). The color line sensor can be moved to a color read position in order to meet the design preference by a stepping motor which is disclosed in claim 1.

However, Tomaru fails to expressly disclose that a focal depth to the read surface of the document conveyed by the document feeding section is within a permissible range.

Official notice is taken on well-known prior art that the color read position can be set so that at the scan position of each of the line sensors constituting the color line sensor, a focal depth to the read surface of the document conveyed by the document feeding section is smallest. It would have been oblivious to one of ordinary skill in the art at the time of the invention.



Art Unit: 2626

With respect to **claim 11**, which further limits claim 7, it is analyzed and rejected for the same reason set forth in the rejection of claim 10.

With respect to **claim 14**, which further limits claim 13, it is analyzed and rejected for the same reason set forth in the rejection of claim 10.

With respect to **claim 15**, which further limits claim 14, it is analyzed and rejected for the same reason set forth in the rejection of claim 10.

With respect to **claim 16**, which further limits claim 13, it is analyzed and rejected for the same reason set forth in the rejection of claim 10.

With respect to **claim 17**, which further limits claim 16, it is analyzed and rejected for the same reason set forth in the rejection of claim 10.

With respect to **claim 20**, which further limits claim 18, it is analyzed and rejected for the same reason set forth in the rejection of claim 3.

With respect to **claim 27**, which further limits claim 24, it is analyzed and rejected for the same reason set forth in the rejection of claim 10.

With respect to **claim 28**, which further limits claim 24, it is analyzed and rejected for the same reason set forth in the rejection of claim 11.

With respect to **claim 29**, which further limits claim 24, it is analyzed and rejected for the same reason set forth in the rejection of claim 12.

With respect to **claim 30**, it is analyzed and rejected for the same reason set forth in the rejection of claim 13.

With respect to **claim 31**, which further limits claim 30, it is analyzed and rejected for the same reason set forth in the rejection of claim 14.

With respect to **claim 32**, which further limits claim 30, it is analyzed and rejected for the same reason set forth in the rejection of claim 15.

With respect to **claim 33**, which further limits claim 30, it is analyzed and rejected for the same reason set forth in the rejection of claim 16.

With respect to **claim 34**, which further limits claim 30, it is analyzed and rejected for the same reason set forth in the rejection of claim 17.

5. Claim 9 and 26 rejected under 35 U.S.C. 103(a) as being anticipated by Tomaru (2003/0214687) as applied to claims 1-8, 10-25, and 27-34 and further in view of Sakakibara et al. (2003/0053157).

With respect **claim 9**, which further limits claim 7, it is analyzed and rejected for the same reason set forth in the rejection of claim 7. Tomaru further teaches a coordinate indicative of a distance from the standby position of the scanning section to the color read position and a second coordinate indicative of a distance from the standby position of the scanning section to the monochromatic read position (Fig. 8a, Fig. 8b, Fig. 8c, and paragraph 69 and 71-72).

However, Tomaru fails to expressly disclose a memory to store the coordinate.

Sakakibara et al. disclose a scanner control section (Fig. 2, element 40) which comprises a ROM (Fig. 2, element 101) and a RAM (Fig. 2, element 102).

The inventions of Tomaru and Sakakibara et al. are combinable because they are from analogous art, image processing apparatus. And it would have been obvious to a person of ordinary skill in the art at the time of invention to combine the inventions of

Art Unit: 2626

Tomaru and Sakakibara et al. because using a memory in an image reading apparatus to store information for scanning desire image is well known.

With respect to **claim 26**, which further limits claim 24, it is analyzed and rejected for the same reason set forth in the rejection of claim 9.

### ***Contact***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Huo Long Chen whose telephone number is (571) 270-3759. The examiner can normally be reached on 8:00am to 5:00pm Monday-Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Vu Le can be reached on (571)272-7332. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Huo Long Chen  
/ABUL K. AZAD/  
Primary Examiner, Art Unit 2626

Patent Examiner